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**Five New Species of Mordellidae from Louisiana
and Mississippi¹**
(Coleoptera)

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This study was based on specimens sorted from light-trap collections received from the Gulf Coast Mosquito Control Commission, Gulfport, Miss., and the Mississippi Test Support Facility, NASA. The identification is based on Brimley (1951), following Liljeblad's classification (1945). The new species belong to the genus *Mordellistena* Costa. Their types are mounted in polyvinyl alcohol and deposited in the U. S. National Museum.

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***Mordellistena longictena* Khalaf, new species**

Length to apices of elytra around 3.3 mm, pygidium very long and slender, 2.2 mm, hypopygium 0.5 mm. Color of head and prothorax brownish red, venter red, abdomen infuscated. Last abdominal segment (sometimes), pygidium, and elytra black, except for reddish humeral spot occupying proximal one-third of elytron. Antennae dark, except yellowish on first four segments and base of fifth. Palpus brownish, darker distally. First two pairs of legs brownish. Pubescence yellowish.

Eyes moderately large, pear shaped, hairy, and finely granular. Antennae subserrate, 1.2 mm long, nearly reaching base of pronotum. Proportions of segments 2-5 as 11:10:9:15 and segments 10-11 as 3:4. Terminal segment of maxillary palpi triangular, narrow proximally, apical and inner edges subequal.

Scutellum triangular, with obtuse apex. Penultimate segment of front and middle tarsi only slightly notched. Middle tibia shorter than tarsus. Long tibial spur about twice length of the small. Metatibia with three oblique combs, preapical and apical not included, second long and crossing outer face, proximal comb sometimes rudimentary. Basitarsus with from four combs to five and a rudiment. Second segment of tarsus with three combs, proximal sometimes rudimentary.

Cross vein r light in color (Fig. 1). Medial fleck separated by its own length from posterior wing margin. Four anal veins present. Distinct dark spot present on cross vein r-m. Basal part of anterior fleck distinct.

Holotype female, EDWARD BAYOU, MISSISSIPPI, 21 September 1966. Paratypes: 1 ♀, Edward Bayou, Miss., 25 September 1966; 1 ♀, Pearlinton, Miss., 1 September 1966.

This species is somewhat allied to *M. husseyi* Liljeblad. Variations in the latter species were described by Ray (1946). *Mordellistena longictena* differs from *M. husseyi* in color (especially the possession of a humeral spot), presence of three combs on second hind tarsal segment, shape of last segment of maxillary palpi, very long pygidium, and smaller size.

***Mordellistena gigantea* Khalaf, new species**

Length to apices of elytra 5-5.5 mm, pygidium 2.2-2.5 mm, hypopygium 0.75 mm. Color dark brown, abdomen dark, metasternum and metacoxae lighter in male. A black patch in male between eyes. Legs (except knees and tarsi), basal four segments of antennae, and palpi yellowish brown, darker in female. Antennae dark, except basal four segments. Palpi yellow, terminal segment infuscated, darker in female. In female, isolated elytra lighter in color distally. Upper surface with short, dense pubescence.

Eyes moderately large, hairy, and finely granulate. Antennae short, 1.2 mm long, subserrate, not reaching base of prothorax. Proportions of segments 2-5 as 13:16:14:16 and segments 10-11 as 14:16. Terminal segment of maxillary palpi club shaped or only faintly triangular, apical edge shortest.

Scutellum triangular, apex somewhat obtuse. Penultimate segment of front and middle tarsi only slightly notched. Long tibial spur about twice length of the small. Metatibia with three oblique combs, preapical and apical not included, second long and crossing outer face. Sometimes, one or two rudiments replace proximal comb,

and additional rudiment may be present just beyond long comb. Basitarsus with four combs; sometimes additional rudiment present; second segment with two and a rudiment.

In wing (Fig. 2), cross vein r somewhat faint. Medial fleck separated by nearly its own length from wing margin. Four anal veins pigmented; jugal present. Radial cell relatively long. Spurious, pigmented fleck present proximal to vein Rs.

Holotype female, ANSLEY, MISSISSIPPI, 30 September 1966. Allotype, Ansley, Miss., 5 September 1966.

This species differs from *M. husseyi* in the form and proportions of antennal segments, and the dimensions of the terminal segment of maxillary palpi.

***Mordellistena mississippiensis* Khalaf, new species**

Small species, total length about 3 mm, pygidium almost 1 mm, proportion of length of pygidium to that of hypopygium 98:35. Color yellowish brown, darker on apical half of elytra, due to dark wings underneath. Ventrally, first two or three visible abdominal segments black. Last four antennal segments infuscated. Pubescence yellow.

Eyes small, hairy. Antennae long (1–1.1 mm), filiform, extending beyond base of pronotum. Proportions of basal five antennal segments: 7.5:9.5:6:7:11; segment eleven slightly longer than tenth. Terminal segment of maxillary palpi triangular, apical edge slightly longer than or subequal to inner.

Scutellum semitriangular, apex obtuse and rounded. Penultimate segment of front and middle tarsus hardly notched. Middle tibia shorter than tarsus. Long tibial spur twice length of the small. Metatibia with two oblique combs, preapical not included, upper one long and crossing outer face. Basitarsus with three combs and second segment with two. Additional, small, rudimentary comb sometimes is present on tibia and first tarsal segment.

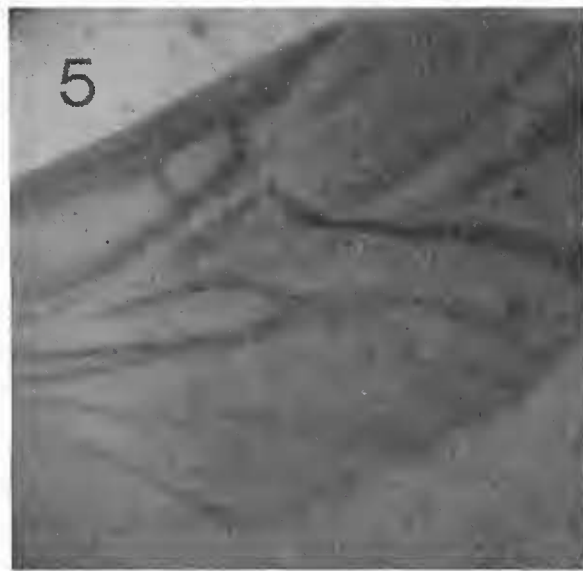
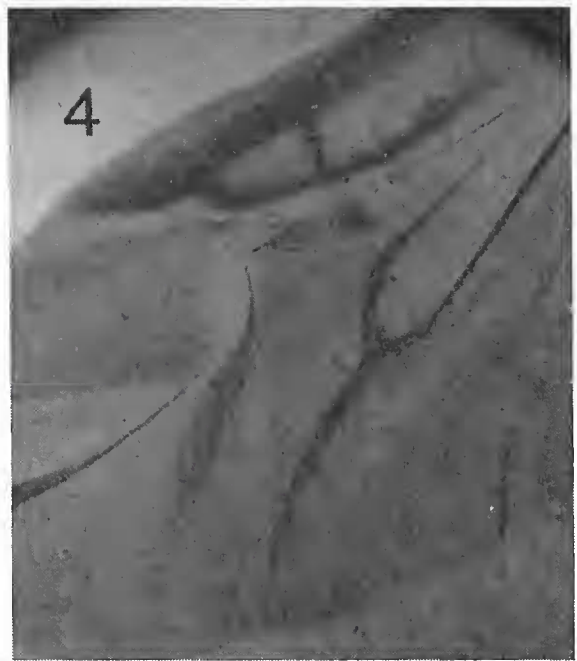
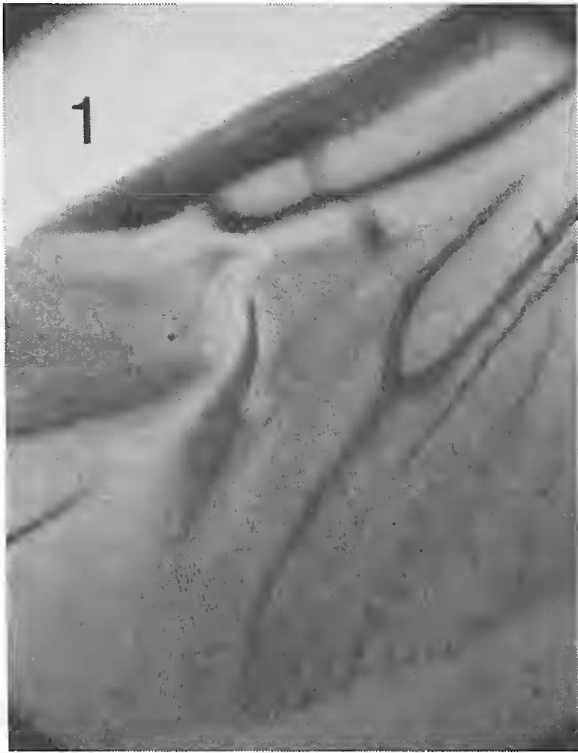
In wing (Fig. 3), cross vein r faint. Medial fleck separated by more than its own length from posterior wing margin. Only trace of fourth anal vein present near base of wing.

Holotype male, GULFPORT, MISSISSIPPI, 18 May 1966. Paratypes: 1 ♂, Long Beach, Miss., 29 April 1966; 1 ♂, NASA (Gate A), Miss., 7 September 1966.

This species differs from *M. wickhami* Liljeblad by its distinctly smaller size, and from *M. testacea* Blatchley which is described as being uniform in color. It also differs from *M. subfuscus* Liljeblad, in color, size of eyes, proportions of antennal segments, and dimensions of terminal segment of maxillary palpi.

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FIGS. 1–5. Hind wings of five new species of *Mordellistena*. FIG. 1. *M. longictena*. FIG. 2. *M. gigantea*. FIG. 3. *M. mississippiensis*. FIG. 4. *M. mullahyi*. FIG. 5. *M. louisianae*.



Mordellistena mullahyi Khalaf, new species

Length to apices of elytra 3 mm, pygidium 1 mm, hypopygium 0.45 mm. Head, palpi, and antennae yellow. First two pairs of legs yellowish, hind legs darker. Rest of body black, except brownish red on apical part of pronotum, humeral vitta (not reaching middle of elytra, margin, or suture), apical edge of elytra, end of abdomen, and pygidium. Sides of pronotum dark brown. Pubescence grayish.

Eyes moderately large, hairy, with moderately coarse facets. Antennae short (0.8–0.9 mm), not reaching base of pronotum. Proportions of antennal segments 2–5 as 80:73:73:105 and segments 10–11 as 95:126, segments 7–10 wide. Terminal segment of maxillary palpi triangular, apical edge shortest.

Scutellum triangular, with obtuse apex. Penultimate segment of front and middle legs faintly notched. Middle tibia slightly shorter than tarsus, proportion 27:30. Metatibia with three short, oblique combs, preapical and apical not included, proximal one small. Basitarsus with three combs and a rudiment, second segment with two.

In wing (Fig. 4), medial fleck separated by its own length from wing margin. Fourth anal vein nearly missing, hardly indicated near base. Cross vein r distinct. Rs widely pigmented. Spur present on stem of first two anal veins. Dark segment of cross vein r-m quite distinct.

Holotype female, THREE RIVERS, MISSISSIPPI, 18 May 1966. This species exhibits some similarity to *M. smithi* Dury. In the latter species however, the head, thorax, and pygidium are black, and the humeral vitta extends beyond the middle of elytra. Moreover, the two species differ in the structure of the antennae.

Mordellistena louisianae Khalaf, new species

Length to apices of elytra 2.5 mm, pygidium 1 mm, hypopygium 0.35 mm. Color of head, thorax, venter, legs, antennae, and palpi yellow. Abdomen and pygidium black, both lighter near tip. Elytra yellow, narrowly black at base, at suture to near apex, and at margin in more than the middle third. Base of prothorax and posterior part of elytra infuscated. (The elytra because of dark wings underneath.)

Pubescence yellow, except in dark areas.

Eyes rather small, finely granular, with erect macrotrichia. Antennae long (1.2 mm), filiform, extending beyond base of pronotum. Proportions of segments 2–5 as 4.7:4:4:7 and segments 10–11 as 6.2:7.5. Terminal segment of maxillary palpi wide triangle, apical edge shortest.

Scutellum triangular, apex broadly rounded. Penultimate segment of front and middle tarsi feebly notched. Middle tibia and tarsus subequal in length. Long tibial spur about twice length of the small. Metatibia with two short, oblique combs, preapical and apical not included, proximal one fine and more oblique. Basitarsus with two combs and a rudiment, second segment with two.

In wing (Fig. 5), medial fleck eroded, separated by more than its own length from wing margin. Pigmented margin of Rs wider basally. Vein Cu faint and narrow except near apex of loop. Fourth anal vein missing. Radial cell short.

Holotype male, INDIAN CAMP (W. PEARL RIVER) LOUISIANA, 4 May 1966.

This species is somewhat allied to *M. dimidiata* Helmuth. However, *M. louisianae* differs in eyes, presence of two combs on second segment of posterior tarsi, color of pygidium, proportions of antennal segments, and shape of maxillary palpus. *Mordellistena pratensis* Smith and *M. errans* Fall are seemingly allied species, but were only briefly described. *Mordellistena pratensis* is a much smaller species with different coloration, while *M. errans* is described as entirely yellow testaceous with the unusual character of having the fourth antennal segment longer than the fifth.

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BOOK REVIEW

THE COMPARATIVE ANATOMY OF THE MALE GENITAL TUBE IN COLEOPTERA. 1969 reprint without change. By David Sharp and Frederick A. G. Muir. Entomological Society of America, 4603 Calvert Road, College Park, Maryland 20740. \$10.00.

The original of this invaluable work with its 37 plates appeared in Part III of *The Transactions of the Entomological Society of London* for the year 1912, and was published on 24 December 1912. It has been increasingly hard to obtain and as many of the illustrations of male genitalia are still the only ones in print for their respective genera the reprinting is most welcome. This is especially so because the new edition includes as an Appendix, reprints (with original paginations) of two subsequent papers by Sharp and four by Muir, all dealing with continuations of their original study. There is a 2-page preface to the book, by E. C. Zimmerman, and a 2-page introduction by him to the six shorter papers; in the latter he draws attention to corrections to be made in the 1912 work.

As Zimmerman remarks, it would be preferable to have a completely revised and expanded edition of Sharp and Muir, but with the help of Lindroth and Palmén's chapter in Tuxen's *Taxonomist's glossary of genitalia in insects*, and papers by specialists in various families, the student can make excellent use of this first-class reprinting. Counting the plates it is a book of 300 pages, but with the parts in their original pagination, so is not separately paged.—HUGH B. LEECH, *California Academy of Sciences, San Francisco.*